

Energy monitoring

Application: non-critical large industrial buildings > 500 kVA

Manage WAGES* in non-critical large industrial buildings

*Water, Air, Gas, Electricity, Steam

“ I need to make sure my processes are running at maximum efficiency without generating any shortages. Plus, I want a breakdown of individual energy costs for each workshop. ”

Combine an iRio RTU, Rio extensions and meters to track workshops consumption

The system is based on an iRio RTU (Remote Terminal Unit), plus Rio extension modules on the secondary switchboards for each workshop or production line. The terminal and modules pick up metering data from power meters (pulsing contacts or Modbus Serial Line communication) and flow meters (pulsing contact, Modbus Serial Line communication, or M-Bus open metering communication). The terminal then generates the necessary databases, dashboards, curves, and reports and transmits data.

The solution provides WAGES consumption information for each workshop or production line, and then provides ratios and curves showing each machine's or each area's consumption profile. The metering database can be downloaded for detailed budgeting and usage optimization needs.

Electric metering can be provided by a number of meter options depending on your distribution architecture and metering performance requirements:

- Masterpact or Compact NSX built-in power meter
- PM9C/200/700 communicating power meters
- Cost-effective EN40/PM9P/ME4zr pulsing power meters

Solution

Benefits



For the user

> **10% energy savings thanks to usage analysis**

- Even greater savings if additional controls are implemented

> **More efficient operation and maintenance**

> **Reduced utility fees and penalties** through load shedding

> **Reliable industrial RTU technology** ensures information is available

> **Customizable data processing, user interfaces, reports, and controls**

> **Cost-effective**

- The solution works with pulse metering technology
- Possible small initial rollout to secure quick ROI; can be scaled up later with additional metering

> **iRio pre-developed software modules** minimize software development costs

> **Web based for easy implementation;** no dedicated workstation required



+ **Low software development costs:** iRio comes with pre-developed software modules

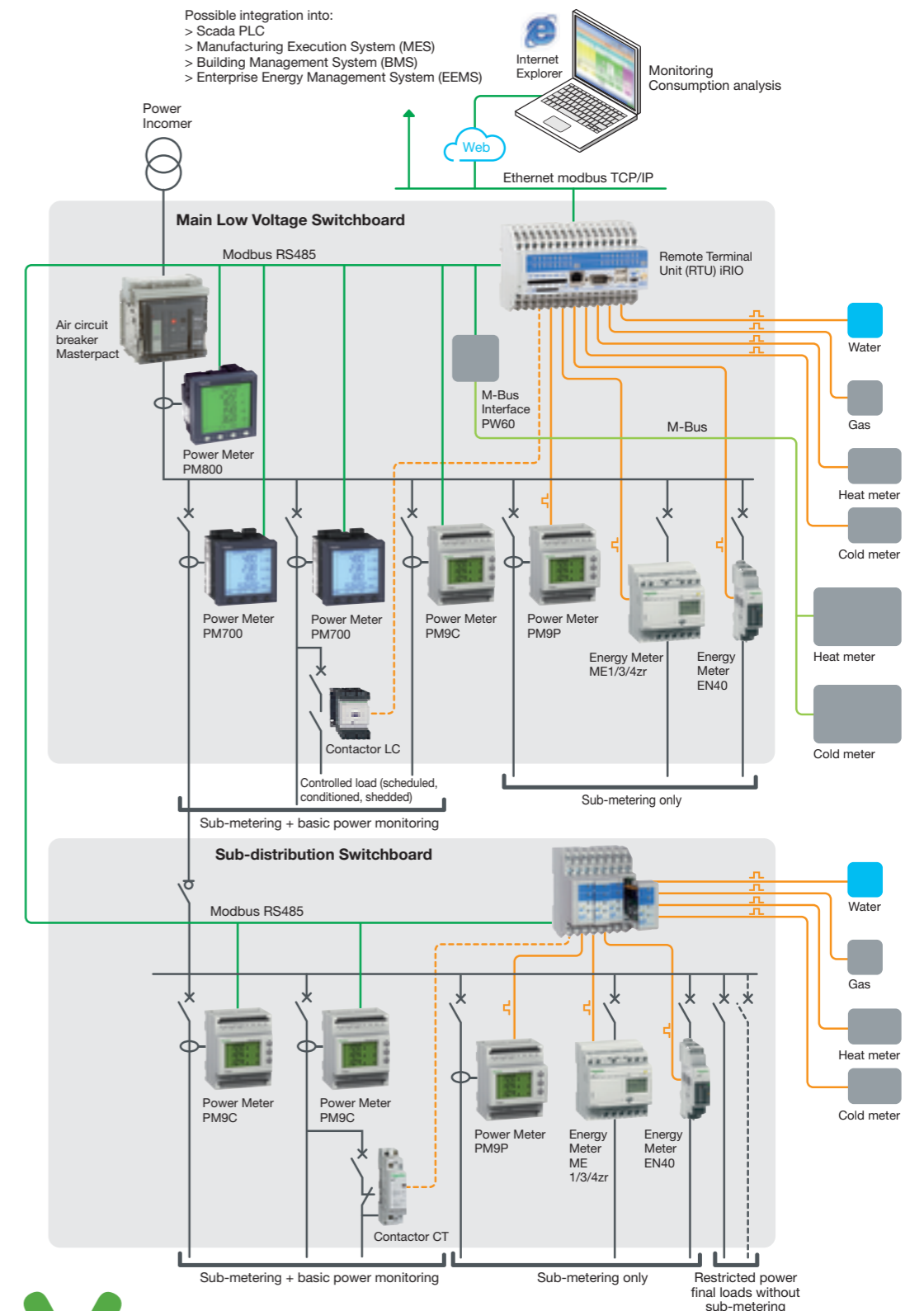
+ **Flexible data acquisition capabilities** (pulse, Modbus SL, M-Bus) for compatibility with existing meters

+ **Powerful customization capabilities:** implement additional control functions if and when required

+ **Highly scalable for maximum cost-effectiveness**

+ **Less time spent on-site:** remote alarm and operation

- Measure
- Reduce energy consumption
- Reduce energy costs



Masterpact

- Nominal current 630 to 1600 A
- Breaking performance 42 to 150 kA at 220/415 V AC
- Voltage rating: up to 690 V

- 4 Micrologic control units with metering, energy management and network analysis functions
- Compliance with IEC 60947-1 and 2, IEC 68230, UL489, ANSI, and CCC standards

iRIO RTU

- Central unit of Rio modular system features with integrated web server
- Sends information by GSM, GPRS, Ethernet, RS485

- Optional additional cards for external inputs and outputs
- iRio RTU PW60 interface accepts M-Bus Protocol of flow meters